

organic topsoil or muck often is embedded with fallen trees. In some cases the organic material overlying the mineral soil base is several feet thick, making it difficult for new plants and trees to grow. The deep muck is not only very moist, but has a high acid content, primarily tannic acid from decaying plant materials.

## 1. Bog Land Conversion to Agriculture and Forestry

Bog lands in Washington, Hyde, Tyrrell, Pasquotank, and Currituck Counties are being converted to agricultural use. Other large tracts, in Dare and Tyrrell Counties, are being managed and developed for sustained yield forestry by pulp and paper companies.

Within the tracts being developed there are "dead spots" or places where the organic top soil is too deep to permit adequate agricultural or forest use. Forest development usually involves digging a series of drainage canals to lower the water table, with the spoil from the digging used as a road base to provide access ways. Once a drainage system has been constructed, seeding, planting, and timber cutting programs designed to produce a constant timber supply can be operated.

Good growths of pine can be obtained from well drained bog lands. Pulp and paper companies have a heavy demand for softwoods, therefore the availability of a good supply in the area is important to the large mills nearby. Bog used for timber land under intensive management can provide a good refuge for the large game found there naturally, such as deer and bear.

Bog converted to agricultural use must not have a deep organic top layer. Agricultural lands are claimed in much the same way that forest lands are brought under intensive management, except that after digging drainage ways and building access roads, further treatment is necessary. First the land must be cleared of trees, scrub growth, stumps, and embedded wood. Then the soil is typically treated with heavy amounts of lime to combat the high natural acidity. If a very large number of embedded trees and stumps lie in the muck layer, the land is not suitable for cultivation, but is sometimes used for pasture. Bog lands converted to agriculture are of little value as wildlife refuge areas.

## 2. Bog Land Conservation

Based on the plans announced by the major corporate interests that own bog land in the region, it seems safe to assume that it is only a matter of time until all of the bog is developed for agriculture, forestry, or some other use. The drainage characteristics of this unique wetland are being permanently altered by the developments already under way. If it is deemed advisable to retain natural tracts of bog in the region as wildlife refuge areas, then it is not too early to consider how this can be done.